

XML Metadata Interchange (XMI)

Proposal to OA&DTF RFP - 3

Stream based Model Interchange Format (SMIF)

Co-Submitters

Unisys, IBM, DSTC, Oracle, Platinum, Fujitsu, Reccerca, Daimler-Benz

Supporters

**Cayenne, Genesis, Inline, Rational, Select, Sprint, Sybase, Xerox, Boeing, Softeam,
Ardent, Aviatis, ICONIX, Integrated, Verilog**

OMG TC Meeting, Seattle : September 16, 1998

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Topics Covered

- Introduction & History
- Background
- Status

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Introduction

- In November 1997, the MOF and UML were adopted as OMG standards.
- The specifications included metamodel and set of CORBA interfaces for manipulating MOF based meta objects and UML based models
- However a file/stream based interchange format was not specified (time constraints...)
 - In December 1997, the SMIF RFP was issued
- Several LOIs and 3 potential submissions CDIF, UOL, XMI began emerging

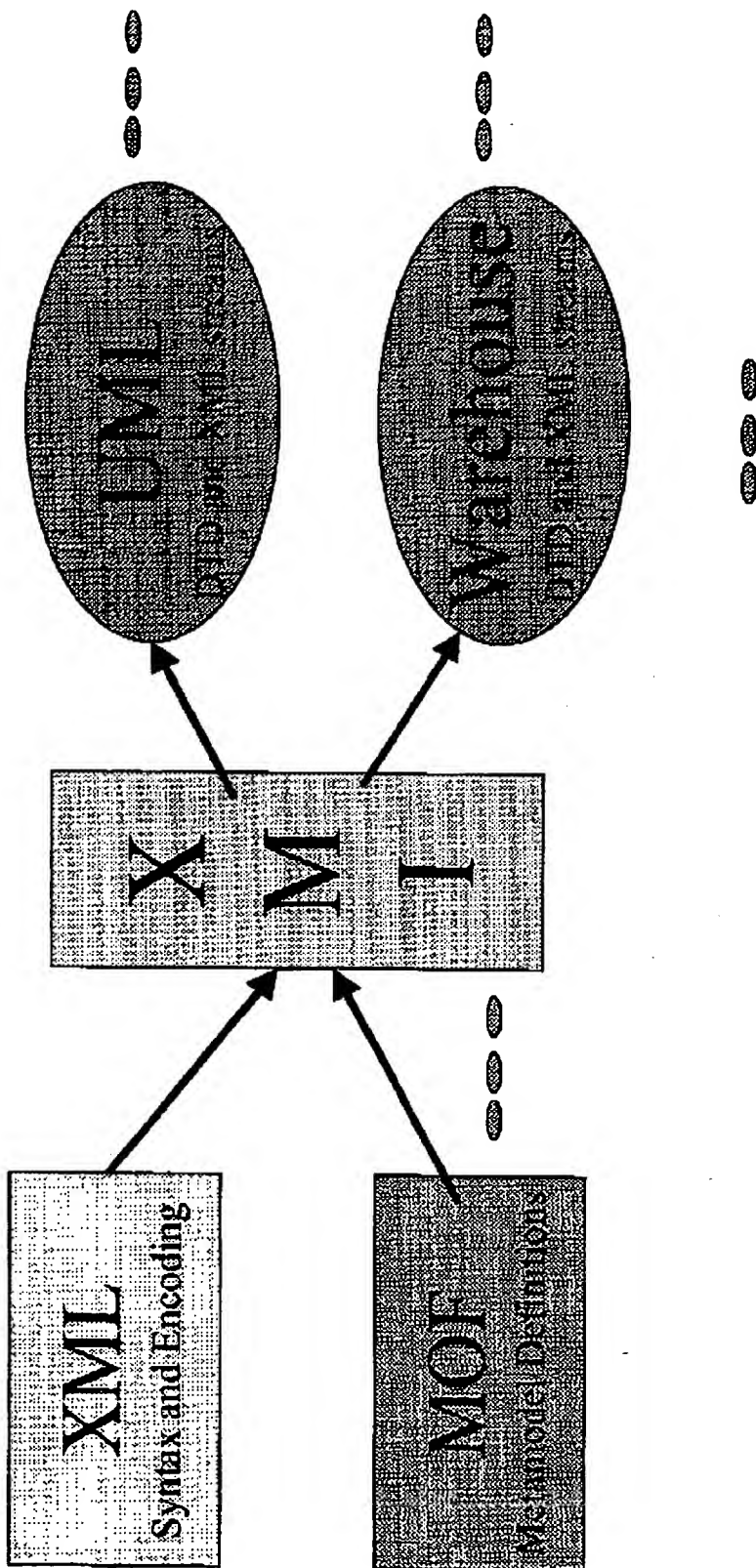
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XMI Submission History/factoids

- 2/98 : Unisys and IBM begin XML collaboration
- 4/98 : Oracle, DSTC and Platinum join
- 5/98 : Select Software joins
Early discussions with other submitters
- 6/98 : XMI submission preview (Orlando)
Rational Software, Sybase, Inline, Genesis, Cayenne, Sprint, Xerox join
- 7/98 : XMI 1.0 submission and presentation,
CDIF and UOL begin work with XMI
- 9/98 : XMI status update

XMI Simplified



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XML example

Document

```
<Auto>
  <Make> Ford </Make>
  <Model> Mustang </Model>
  <Year> 98 </Year>
  <Color> blue </Color>
  <Price> 25000 </Price>
</Auto>
```

DTD
<!Element Auto (Make, Model, Year, Color, Price)>

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XMI Status

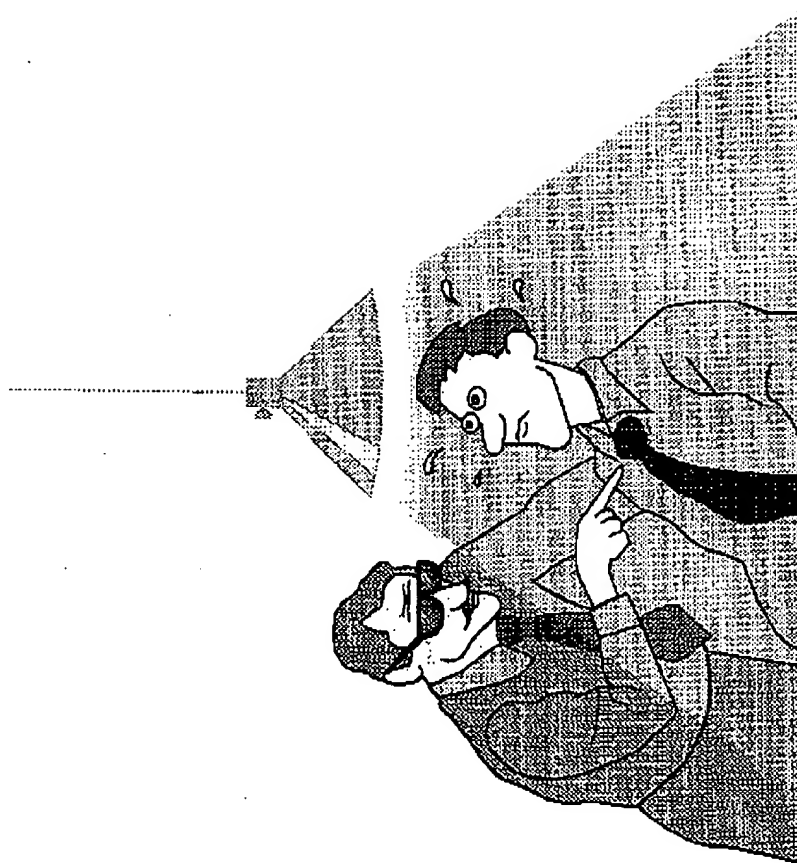
- XMI is on track
- CDIF and UOL are working to improve XMI
 - CDIF: Unique IDs, CDIF/XMI bridge
 - UOL: XMI differencing
- Updating submission for completeness
- Including feedback and comments
 - xmi-feedback@omg.org
- Major revision comments requested by Sept. 25
- Preparing for October 20 final submission

For more information

- Stay tuned to future meetings
 - Comments to : xmi-feedback@omg.org
- E-mail
 - sridhar.iyengar2@unisys.com
 - sbrodsky@us.ibm.com
- XML Information
 - www.w3c.org
- UML and MOF Information
 - www.omg.org

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Questions & Comments



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XML Metadata Interchange (OMG XMI) Distributed Metadata Interchange for the WEB Generation

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Meta-Data Conference

April 19-22, Atlantic City



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Topics Covered

- Why XML is important for metadata enthusiasts?
- XML Overview
- OMG Metadata Architecture
- OMG XML Metadata Interchange (XMI)
- XMI and the future

XML
QUEST MARKS READING COPY

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Unisys

- Global services and technology company
 - 1998 Revenues : \$7.2 Billion
 - *www.unisys.com*
- Services, Systems and Software for the enterprise
- Use of metadata and object repositories for software and systems integration
 - *www.marketplace.unisys.com/urep*
- Committed to specifying and implementing open standards for enterprise software integration
 - *OMG MOF, UML, XML, LDAP, XMI, CORBA, COM, EJB...*

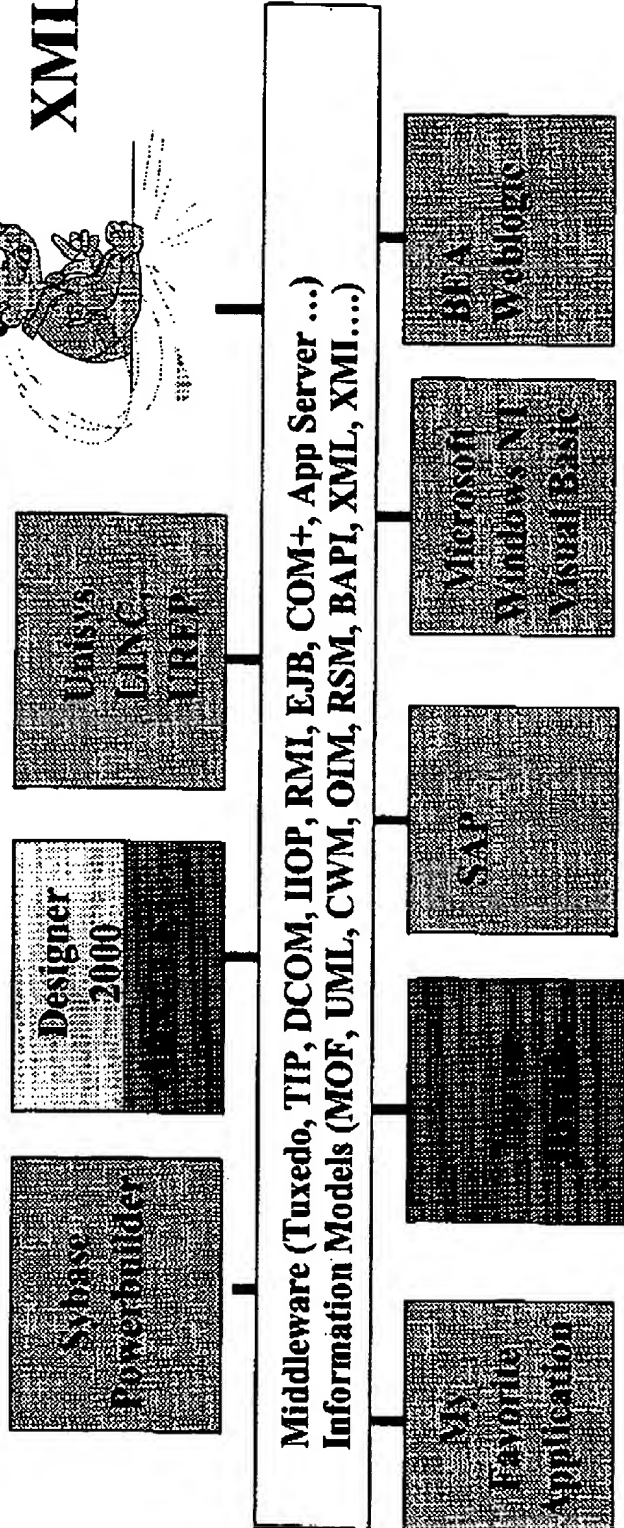
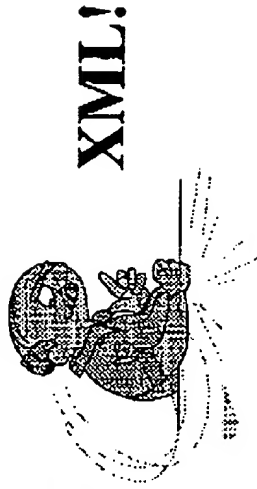
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'Muddleware' Architects Dilemma

Architect



Distributed, Heterogeneous, Client/Server!
Multiple Clients, Servers, Tools, O/S, Databases, Repartitions, Object Models

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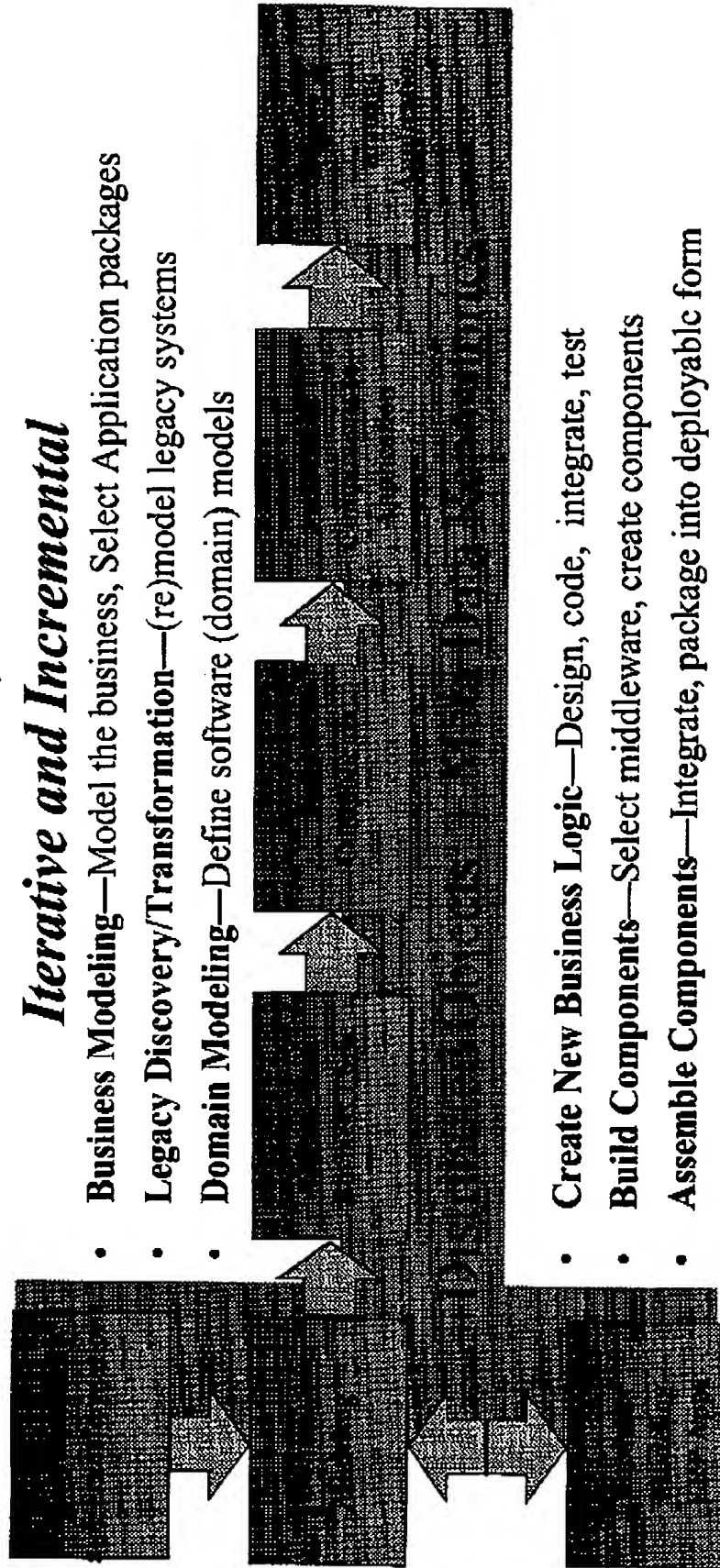
Component Development

Life Cycle - Why Metadata matters!

Architecture Centric, Use case driven

Iterative and Incremental

- **Business Modeling**—Model the business, Select Application packages
- **Legacy Discovery/Transformation**—(re)model legacy systems
- **Domain Modeling**—Define software (domain) models



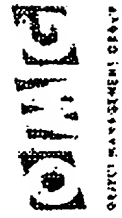
- **Create New Business Logic**—Design, code, integrate, test
- **Build Components**—Select middleware, create components
- **Assemble Components**—Integrate, package into deployable form
- **Deploy Application**—Move into operational environment and manage

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The Rising Role of XML

- Why the excitement?
 - Simple packaging of data and metadata
 - Easier to use and comprehend than traditional metadata technologies (relational and object repositories)
 - The link to the web and promise of common vocabulary (tags) appealing
 - All vendors (even warring distributed object camps) have jumped on the bandwagon
- XML has a role in each of the phases just described
- XML breaks the need to tie into a single infrastructure



eXtensible Markup Language(XML)

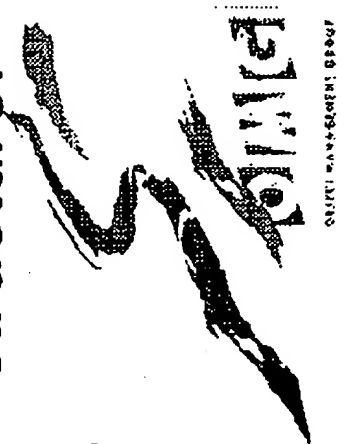
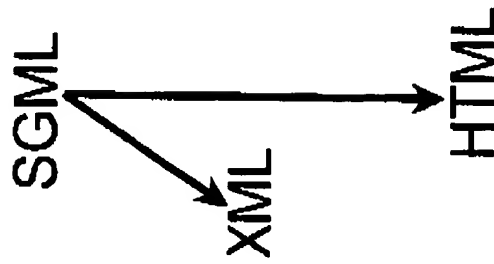
- XML technology
- XML example
- XML and the industry
- XML benefits
- XML and the OMG

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XML technology

- Open standard by the W3C.
- Markup language based on SGML.
- Combines data & metadata for information interchange.
- Simple, flexible, eXtensible.
- Tags form a tree information structure.
- DTD provides the tag rules.



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